

Technical Bulletin

Product Line: Premo

Models: Pink & White Fireballs

Subject: Remediating Early Ignition for Premo Fireballs

Reference: SAFECOM 13-0286

Background

The potassium permanganate currently used in pink/white Premo Fireballs is a very pure formula and is slightly more reactive with ethylene glycol. Customer feedback combined with in-house testing have confirmed that the new Premo Fireballs (pink and white) can display premature chemical reactions and more animated ignition characteristics when injected with pure ethylene glycol in warmer temperatures of approximately 70° F (21° C) or higher.

Recommendations

To delay the ignition times of the Premo balls to no less than 20 seconds please note the following:

- At high ambient temperatures use a commercial grade automotive 50/50 mix of ethylene glycol and water in the PSD to delay ignition times. Refer to manual Sec. 1: Premo MKIII Overview p.2.
- Use of empty spheres allows operator to confirm that ethylene glycol is dispensed adequately and there are not issues with pump, feed line or needle assembly. Sphere should be approximately 1/8 full after injection. Bench test procedure can be found in the manual (Section 2: Operations, p.9).
- Initial calibration of the PSD @ 1 cc of ethylene glycol into the sphere while operating at the slow setting and evaluate volume dispensed after turning to fast setting OR; initial calibration of the PSD @ 0.6cc of ethylene glycol into the sphere while operating at the fast setting and evaluate volume dispensed after turning to slow setting.

- Please note that the temperature of the potassium permanganate and ethylene glycol has a significant impact on chemical reactions times and therefore it is recommended to avoid prolonged exposure to extreme heat. Also, if these materials have been exposed to prolonged high temperatures, additional calibration procedures should be carried out. Calibration instructions can be found in the manual (Section 2: Operations, p.11).

Note: SEI Engineering is conducting further testing, evaluation and will continue to investigate any opportunities for improvement with SEI Premo fire ignition spheres and Premo PSD machines.

For further information please refer to the 2012 Premo MK III Operations and Service Manual (Version A) via SEI website below:

http://www.sei-ind.com/sites/default/files/pdf/2012_Premo_MK_III_Manual.pdf

Also, please refer to the Interagency Aerial Ignition Guide March 2012 for more information:

<http://www.nwccg.gov/pms/pubs/pms501.pdf>

This Technical Bulletin is available on the SEI website. <http://www.sei-ind.com/resources/manuals>

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